



SEQUENCE LISTING

<110> Evans, Thomas  
Xu, Ming-Qun

<120> Intein-Mediated Protein Ligation Of Expressed Proteins

<130> NEB-154-PUS

<140> 09/249,543

<141> 1999-02-12

<160> 26

<170> PatentIn Ver.2.0

<210> 1

<211> 99

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 1

tcgaggcaac caaccctgc gtatccggtg acaccattgt aatgactagt ggcgggtccgc 60  
gcactgtggc tgaactggag ggcaaaccgt tcaccgcac 99

<210> 2

<211> 93

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 2

ccgggttggt gctcgccaca gttgtgtaca atgaagccat tagcagtga tgcgctagca 60  
ccgtaaacag tagcgtcata aacatcctgg cgg 93

<210> 3

<211> 100

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 3

tgattcgagg ctctgggtac ccatgcccct caggtttctt ccgcacctgt gaacgtgacg 60  
tatatgatct gcgtacacgt gagggtcatt gcttacgttt 100

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<210> 4  
<211> 100  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 4  
gacccatgat caccgtgttc tggatgatgga tggatggcctg gaatggcgtg ccgcgggtga 60  
actggaacgc ggcgaccgcc tggatgatgga tgatgcagct 100

<210> 5  
<211> 87  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 5  
ggcgagtttc cggcactggc aaccttccgt ggcctgcgtg gcgctggccg ccaggatgtt 60  
tatgacgcta ctgtttacgg tgctagc 87

<210> 6  
<211> 49  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 6  
gcattcactg ctaatggctt cattgtacac aactgtggcg agcagccaa 49

<210> 7  
<211> 100  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 7  
ccagcgccac gcaggccacg gaaggttgcc agtgccggaa actcgccagc tgcacatcc 60  
atcaccaggc ggtcgccgcg ttccagttca cccgcggcac 100

<210> 8

<211> 90  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 8  
gccattccag gccaccatcc atcaccagaa cacggtgatc atgggtcaaa cgtaagcaat 60  
gaccctcagc tgtacgcaga tcatatacgt 90

<210> 9  
<211> 97  
<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 9  
cacgttcaca ggtgcggaag aaacctgagg ggcattgggta gccagagccg cgaatcagtg 60  
cggtgaacgg tttgccctcc agttcagcca cagtgcg 97

<210> 10  
<211> 55  
<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 10  
cggaccgcca ctagtcatta caatggtgtc accggatagc cagggggttg ttgcc 55

<210> 11  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 11  
tcgaggcaac caacgcatgc gtatccggtg acaccattgt aatga 45

<210> 12  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 12  
 ctagtcatta caatggtgtc accggatacg catgcggttg ttgcc 45

<210> 13  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 13  
 tcgagggctg cgtatccggt gacaccattg taatga 36

<210> 14  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 14  
 ctagtcatta caatggtgtc accggatacg cagccc 36

<210> 15  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 15  
 tcgagggcat cgaggcaacc aacggatccg tatccggtga caccattgta atga 54

<210> 16  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 16  
 ctagtcatta caatggtgtc accggatacg gatccgttgg ttgcctcgat gccc 54

<210> 17  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 17  
 tcgagggcat cgaggcaacc aacggcgccg tatccggtga caccattgta atga 54

<210> 18  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 18  
 ctagtcatta caatggtgtc accggatacg gcgccgttgg ttgcctcgat gccc 54

<210> 19  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 19  
 gtacacgcat gcggcgagca gcccggga 28

<210> 20  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 20  
 ccggtcccgg gctgctcgcc gcatgcgt 28

<210> 21

<211> 14  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.  
  
 <220>  
 <223> At position 12, "Xaa" = any amino acid  
  
 <400> 21  
 Thr Leu Glu Gly Cys Gly Glu Gln Pro Thr Gly Xaa Leu Lys  
 1 5 10

<210> 22  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.  
  
 <400> 22  
 Cys Gly Glu Gln Pro Thr Gly  
 1 5

<210> 23  
 <211> 462  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> CDS  
 <222> (1)..(462)  
 <223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 23  
  
 caa ctc ggg agg ata gag gca acc aac ccc tgt gta tcc ggt gac acc 48  
 Gln Leu Gly Arg Ile Glu Ala Thr Asn Pro Cys Val Ser Gly Asp Thr  
 1 5 10 15  
  
 att gta atg aca tcc ggg ggt ccg cgg aca gtg gct gaa ctg gag ggc 96  
 Ile Val Met Thr Ser Gly Gly Pro Arg Thr Val Ala Glu Leu Glu Gly  
 20 25 30  
  
 aag ccc ttc acc gca ctt atc agg ggc tca ggg tac ccc tgc ccc tca 144  
 Lys Pro Phe Thr Ala Leu Ile Arg Gly Ser Gly Tyr Pro Cys Pro Ser  
 35 40 45

ggt ttc ttc agg acc tgt gaa cgg gac gta tat gat ctt aga acc agg 192  
 Gly Phe Phe Arg Thr Cys Glu Arg Asp Val Tyr Asp Leu Arg Thr Arg  
 50 55 60

gag ggt cat tgc tta agg ttg acc cat gat cac agg gtc ctt gta atg 240  
 Glu Gly His Cys Leu Arg Leu Thr His Asp His Arg Val Leu Val Met  
 65 70 75 80

gat ggt ggt ctg gaa tgg cgt gcc gcc ggt gaa ctt gaa agg gga gac 288  
 Asp Gly Gly Leu Glu Trp Arg Ala Ala Gly Glu Leu Glu Arg Gly Asp  
 85 90 95

cgc ctt gtg atg gat gat gct gca ggg gag ttt ccg gca ctt gca acc 336  
 Arg Leu Val Met Asp Asp Ala Ala Gly Glu Phe Pro Ala Leu Ala Thr  
 100 105 110

ttc aga ggc ctc agg ggc gcc ggc cgc cag gat gtc tat gac gcc act 384  
 Phe Arg Gly Leu Arg Gly Ala Gly Arg Gln Asp Val Tyr Asp Ala Thr  
 115 120 125

gtc tac ggt gcc agt gca ttc aca gcc aat gga ttc ata gtc cac aac 432  
 Val Tyr Gly Ala Ser Ala Phe Thr Ala Asn Gly Phe Ile Val His Asn  
 130 135 140

tgt ggg gag cag cca ctc ctc acc cat gaa 462  
 Cys Gly Glu Gln Pro Leu Leu Thr His Glu  
 145 150

<210> 24  
 <211> 154  
 <212> PRT  
 <213> Artificial Sequence

<223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 24

Gln Leu Gly Arg Ile Glu Ala Thr Asn Pro Cys Val Ser Gly Asp Thr  
 1 5 10 15

Ile Val Met Thr Ser Gly Gly Pro Arg Thr Val Ala Glu Leu Glu Gly  
 20 25 30

Lys Pro Phe Thr Ala Leu Ile Arg Gly Ser Gly Tyr Pro Cys Pro Ser  
 35 40 45

Gly Phe Phe Arg Thr Cys Glu Arg Asp Val Tyr Asp Leu Arg Thr Arg  
 50 55 60

Glu Gly His Cys Leu Arg Leu Thr His Asp His Arg Val Leu Val Met  
65 70 75 80

Asp Gly Gly Leu Glu Trp Arg Ala Ala Gly Glu Leu Glu Arg Gly Asp  
85 90 95

Arg Leu Val Met Asp Asp Ala Ala Gly Glu Phe Pro Ala Leu Ala Thr  
100 105 110

Phe Arg Gly Leu Arg Gly Ala Gly Arg Gln Asp Val Tyr Asp Ala Thr  
115 120 125

Val Tyr Gly Ala Ser Ala Phe Thr Ala Asn Gly Phe Ile Val His Asn  
130 135 140

Cys Gly Glu Gln Pro Leu Leu Thr His Glu  
145 150

<210> 25  
<211> 447  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> CDS  
<222> (1)..(447)  
<223> Description of Artificial Sequence: Chemically  
Synthesized From Methanobacterium  
thermoautotrophicum.

<400> 25

ctc gag gca acc aac ccc tgc gta tcc ggt gac acc att gta atg act 48  
Leu Glu Ala Thr Asn Pro Cys Val Ser Gly Asp Thr Ile Val Met Thr  
1 5 10 15

agt ggc ggt ccg cgc act gtg gct gaa ctg gag ggc aaa ccg ttc acc 96  
Ser Gly Gly Pro Arg Thr Val Ala Glu Leu Glu Gly Lys Pro Phe Thr  
20 25 30

gca ctg att cgc ggc tct ggc tac cca tgc ccc tca ggt ttc ttc cgc 144  
Ala Leu Ile Arg Gly Ser Gly Tyr Pro Cys Pro Ser Gly Phe Phe Arg  
35 40 45

acc tgt gaa cgt gac gta tat gat ctg cgt aca cgt gag ggt cat tgc 192  
Thr Cys Glu Arg Asp Val Tyr Asp Leu Arg Thr Arg Glu Gly His Cys  
50 55 60

tta cgt ttg acc cat gat cac cgt gtt ctg gtg atg gat ggt ggc ctg 240



Leu	Arg	Leu	Thr	His	Asp	His	Arg	Val	Leu	Val	Met	Asp	Gly	Gly	Leu	
65					70					75					80	
gaa tgg cgt gcc gcg ggt gaa ctg gaa cgc ggc gac cgc ctg gtg atg																288
Glu	Trp	Arg	Ala	Ala	Gly	Glu	Leu	Glu	Arg	Gly	Asp	Arg	Leu	Val	Met	
				85					90					95		
gat gat gca gct ggc gag ttt ccg gca ctg gca acc ttc cgt ggc ctg																336
Asp	Asp	Ala	Ala	Gly	Glu	Phe	Pro	Ala	Leu	Ala	Thr	Phe	Arg	Gly	Leu	
			100					105					110			
cgt ggc gct ggc cgc cag gat gtt tat gac gct act gtt tac ggt gct																384
Arg	Gly	Ala	Gly	Arg	Gln	Asp	Val	Tyr	Asp	Ala	Thr	Val	Tyr	Gly	Ala	
		115					120					125				
agc gca ttc act gct aat ggc ttc att gta cac aac tgt ggc gag cag																432
Ser	Ala	Phe	Thr	Ala	Asn	Gly	Phe	Ile	Val	His	Asn	Cys	Gly	Glu	Gln	
		130				135					140					
cca acc ggt gaa ttc																447
Pro	Thr	Gly	Glu	Phe												
145																

<210> 26  
 <211> 149  
 <212> PRT  
 <213> Artificial Sequence

<223> Description of Artificial Sequence: Chemically  
 Synthesized From Methanobacterium  
 thermoautotrophicum.

<400> 26

Leu	Glu	Ala	Thr	Asn	Pro	Cys	Val	Ser	Gly	Asp	Thr	Ile	Val	Met	Thr	
1				5					10					15		
Ser Gly Gly Pro Arg Thr Val Ala Glu Leu Glu Gly Lys Pro Phe Thr																
			20					25					30			
Ala Leu Ile Arg Gly Ser Gly Tyr Pro Cys Pro Ser Gly Phe Phe Arg																
		35					40					45				
Thr Cys Glu Arg Asp Val Tyr Asp Leu Arg Thr Arg Glu Gly His Cys																
		50				55				60						
Leu Arg Leu Thr His Asp His Arg Val Leu Val Met Asp Gly Gly Leu																
65				70					75					80		
Glu Trp Arg Ala Ala Gly Glu Leu Glu Arg Gly Asp Arg Leu Val Met																
			85					90					95			

Asp Asp Ala Ala Gly Glu Phe Pro Ala Leu Ala Thr Phe Arg Gly Leu  
100 105 110

Arg Gly Ala Gly Arg Gln Asp Val Tyr Asp Ala Thr Val Tyr Gly Ala  
115 120 125

Ser Ala Phe Thr Ala Asn Gly Phe Ile Val His Asn Cys Gly Glu Gln  
130 135 140

Pro Thr Gly Glu Phe  
145